

APPLIED TRAUMA MOULAGE REFERENCE GUIDE



MEDICAL MOULAGE

DESIGNED WITH THE MAD
FRAMEWORK™

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EDUCATOR INTRODUCTION

“HOW TO USE THIS GUIDE”

Purpose:

This reference guide is designed to support simulation educators, moulage artists, and facilitators in creating safe, high-impact visual injuries. Each section follows the MAD Framework™ and aligns with Healthcare Simulation Standards of Best Practice™.

Structure:

- Part 1: Structured Educator Guide – Full build details, application steps, cleanup, and safety.
- Part 2: Quick Reference Guide – One-page visual summaries for fast setup.

How to Use:

1. Review Application Steps to plan materials and timing.
2. Check Safety & Cleanup before SP or manikin use.
3. Use the Injury Impact Matrix™ to balance realism with complexity.
4. Reference the Quick Guide on simulation day.
5. Always brief learners for psychological safety.

Note:

All moulage photos are simulated educational visuals — never real injuries. Always patch-test materials and follow your institution’s protocols.

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PART 1

STRUCTURED EDUCATOR GUIDE

Scenario 1: Acidic Chemical Burn – Hand & Forearm

Overview:

Simulates partial-thickness chemical burns caused by acid splash on the dorsal hand and lower forearm.

Application Steps (DIY):

1. Protect SP skin with barrier lotion.
2. Apply red + yellow + white makeup base.
3. Add toilet paper and glue for texture.
4. Drip hair gel for blistering.
5. Dust baking soda or powder for acid residue.

Safety & Cleanup:

- Patch test products.
- Avoid mucous membranes.
- Clean with soap, micellar water, then moisturizer.

Moulage Minute:

Add vinegar scent near area for “acid cue.”

Injury Impact Matrix™

Priority	Low Complexity	High Complexity
High	Barrier and SP safety	Layered burn texture
Low	Gloss highlights	Vapor or sound cue



Alt-text: Simulated acidic burn moulage on left forearm with blistering and discoloration.

(Simulated Image Created by MAD)

Scenario 2: Clotted Leg Laceration – Fallen Hiker

Overview:

Simulates an older field injury with dried blood and dirt.

Application Steps (DIY):

- 1.Layer toilet paper + glue for wound shape.
- 2.Mix red + brown + cocoa for clotted blood.
- 3.Sprinkle coffee grounds for debris.
- 4.Blend bruising around edges.

Safety & Cleanup:

- Use non-food pigments for storage.
- Wash with soap, micellar water, then alcohol wipe.

Moulage Minute:

Add fake insect bites for “delayed rescue” realism.

Injury Impact Matrix™

Priority	Low Complexity	High Complexity
High	Barrier + patch test	Layered clotting realism
Low	Dirt smudge	Insect cue or scent realism



**Alt-text: Simulated clotted leg wound
moulage with dirt debris and dried blood.**

(Simulated Image Created by MAD)

Scenario 3: Clotted Leg + Sprained Ankle Combo

Overview:

Simulates lower-leg trauma with soft-tissue swelling.

Application Steps (DIY):

- 1. Create bruising with purple/yellow makeup.
- 2. Add cotton under plastic wrap for swelling.
- 3. Blend red/purple tones for ankle sprain.

Safety & Cleanup:

- Avoid tight wraps.
- Wash with soap, micellar water, moisturize.

Moulage Minute:

Add prop hiking boot or torn sock for realism.

Injury Impact Matrix™

Priority	Low Complexity	High Complexity
High	Safe wrapping	Combined wound realism
Low	Sweat effects	Limp or gait cue



Alt-text: Simulated ankle swelling with adjacent leg laceration moulage.

(Simulated Image Created by MAD)

Scenario 4: Facial Cuts & Bruising – MVC (Model 1 with Seatbelt Mark)

Overview:

Represents restrained driver post-impact with facial trauma and neck abrasion.

Application Steps (DIY):

- 1. Apply red/purple makeup for bruising.
- 2. Create tissue cuts with glue + torn tissue.
- 3. Add diagonal seatbelt mark (lipstick + purple eyeshadow).

Safety & Cleanup:

- Avoid throat and eye area.
- Wash with soap, micellar water, then moisturize.

Moulage Minute:

Add cracked glasses or airbag prop.

Injury Impact Matrix™

Priority	Low Complexity	High Complexity
High	Skin barrier	Layered bruising with directional cuts
Low	Gloss	SP acting cues + prop use



Alt-text: Simulated facial bruising and seatbelt abrasion across neck of female model.

(Simulated Image Created by MAD)

Scenario 5: Facial Cuts & Bruising – MVC (Model 2 with Seatbelt Mark)

Overview:

Represents passenger variant of MVC trauma with facial cuts and neck redness.

Application Steps (DIY):

- 1. Blend blue/purple makeup for contusions.
- 2. Add thin abrasions with toothbrush flick.
- 3. Highlight neck area with red streak (seatbelt rash).

Safety & Cleanup:

- No pigments near eyes or mucosa.
- Wash with soap, micellar water, then moisturize.

Mouflage Minute:

Add faint airbag powder dust (baby powder) to forehead.

Injury Impact Matrix™

Priority	Low Complexity	High Complexity
High	Skin barrier	Multi-color facial trauma layering
Low	Light Gloss	Seatbelt distress + behavior cue



Alt-text: Simulated facial cuts and neck distress with seatbelt mark on female model.

(Simulated Image Created by MAD)

PART 2

QUICK REFERENCE GUIDE

SCENARIO QUICK VIEWS

Scenario	Time	Realism	Materials	Clean-up
Acidic Burn	30 min	High	Makeup, tissue, gel	Soap + micellar
Clotted Leg	25 min	Med	Glue, makeup, coffee	Soap + alcohol
Leg and Ankle	35 min	High	Cotton, plastic wrap	Soap + remover
MVC Model 1	30 min	High	Makeup, glue, pigment	Soap + micellar
MVC Model 2	30 min	High	Eyeshadow, lipstick, powder	Soap + micellar

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PART 3

BASIC SKIN TEAR

How to Make a Skin Tear

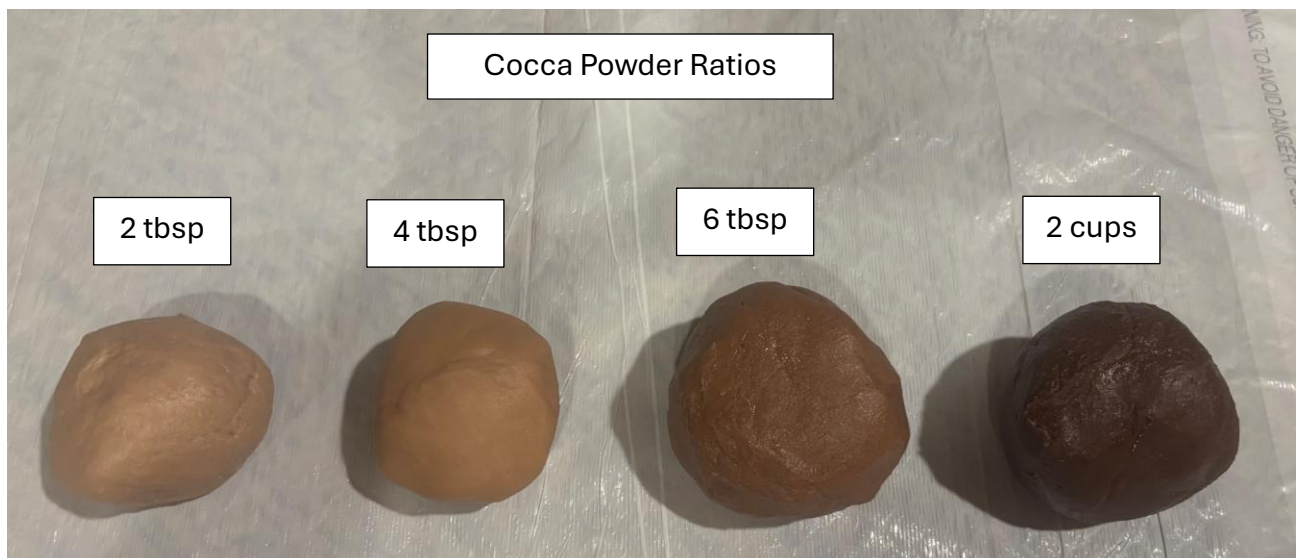
By: Cristena Cook, DNP, APRN, FNP-C, CEN

Supplies/Ingredients

- Ingredients for basic simulated skin (Rich, 2007)
 - 26 ounces of petroleum jelly
 - Three pounds of cornstarch
 - Cocoa powder
- Supplies for creating a realistic skin tear
 - prepared basic simulated skin from recipe above
 - cellulose sponges cut into small squares
 - paint brushes
 - acrylic paints, for color
 - bruise wheels- homemade recipe: eye shadow or paint, distilled water, and isopropyl alcohol - mix together then dehydrate, for color
 - coffee filters
 - sculpting tools

Steps to Create

- Step 1: Create simulated skin. Mix 26 ounces of petroleum jelly, three pounds of cornstarch, and 2 to 6 tablespoons of cocoa powder in a large bowl (Rich, 2007). For a deeper skin tone, mix 2 cups of cocoa powder with the same ingredients and add 1 extra tablespoon of petroleum jelly. For best results, mix dry ingredients (cocoa powder and corn starch together) first, then add in petroleum jelly last.



- Step 2: Spread a small amount of skin mixture where you want your skin tear to be. You want this to be in a thin even layer as you can build more later if you need to.



- Step 3: Tear off the desired size of your coffee filter and fold in an accordion style and place where you want your skin to be bunched up. Use extra skin mixture if needed to blend the coffee filter into your wound.



- Step 5: To add color, start with using a cellulose sponge to add red to the skin mixture. As you do this, slightly push down on the borders to create a slightly raised effect to make it look like skin is missing.



- Step 6: Then use a deep purple or any darker color you want to paint the coffee filter to simulate blood under the skin and bruising from the trauma. You may also want to add some purple to the outer edges of the wound make it as realistic as possible.



Reference:

Rich, H. (2007). Moulage recipes. <https://www.cert-la.com/downloads/moulage/moulage-recipes.pdf>



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